IN THE SPECIFICATION:

On page 1, before paragraph 2, beginning on line 8 (in the preliminary amendment) insert:

--BACKGROUND--

SUBSTITUTE - the following paragraphs for paragraph 1 on page 4, beginning on line 1:

--SUMMARY

The problem is solved with an arrangement for interferometric radar measurement having a transmitter and two assigned coherent receiving antennas with receiving channels. The transmitter and receiving antennas are arranged on the turnstile of the ROSAR system of a helicopter radar. An additional transmitting/receiving antenna is provided for that is sharply focuses in the elevation direction. The transmitter and receiving antennas are arranged at the end of the turnstile. The receiving antennas are arranged at the end of the turnstile.

The arrangement includes a process whereby two coherent receiving antennas with receiving channels are assigned to a transmitter, and the path length difference of the two distances can be calculated to measured receiving point P from the wave length of the transmitted radar signal and of the measured phase difference of the reception echo of both coherent receiving

channels. A helicopter operating according to the ROSAR principle is used for the interferometric radar measurement, whereby two coherent receiving antennas are assigned to a transmitter of the ROSAR system arranged on a rotating turnstile on the radar. Additionally, receiving signals of a sharply focused transmitting/receiving antenna can be evaluated for determination of the phase difference.

The sight angle is used for calculating the coordinates of the respective receiving point for representing the image points on the integrated graphic display screen in the ROSAR system. The antennas and the center of the image on the graphic display screen are in a fixed relationship to each other.--

On page 4, before paragraph 2, beginning on line 7, insert:

--BRIEF DESCRIPTION OF THE DRAWINGS

Other objects and features of the present invention will become apparent from the following detailed description considered in connection with the accompanying drawings which disclose at least one embodiment of the present invention. It should be understood, however, that the drawings are designed for the purpose of illustration only and not as a definition of the limits of the invention.

In the drawings, wherein similar reference characters denote

similar elements throughout the several views:--

On page 4, before paragraph 5, beginning on line 14, insert:
--DETAILED DESCRIPTION--

On page 7, paragraph 6, beginning on line 11:

The altitude h is actually not required in connection with the INROSAR system for representing the image ~~dots~~ points on the graphics display screen DS, but only the sight angle θ is used for calculating the coordinates of an impact point P on the integrated graphics display screen in the ROSAR system. Furthermore, whether the angle of inclination of the antenna is known or not is unimportant as well because the representation on the display screen is only a relative representation of the image ~~dots~~ points with respect to the vertical line in relation to the base line B of the two antennas A1 and A2. The representation of the image is in fact dependent upon the position of the helicopter, for example due to the pitching; however, the antennas of the INROSAR-system and the center of the image are always in a fixed relation to each other. The altitude h and the angle of inclination α of the antennas are only required if a topographical chart with an absolute altitude H of the area over which the aircraft is passing is to be generated with the help of said INROSAR-system. The formulas specified above are useful also for a consideration of errors, as will be explained in the following.

Please amend the paragraph starting on page 9 line 8 as follows:

In conjunction with an exemplified embodiment according to FIG. 1, the helicopter flies in the normal position, which means that the antennas A1 and A2 are positioned vertically one on top of the other. ΔR is determined based on equation (1). The value of the measured phase difference $\Delta\phi$ of the echo from the antennas A1 and A2 is ambiguous and can be determined only down to a value ranging between 0 and 2π. Said ambiguity of 2π has to be determined by means of additional measurements. Suitable for said purpose is an extra ~~a~~ transmitter/receiver complementing the INROSAR conception ~~that is comprises~~ comprising a transmitting/receiving antenna that ~~is sharply focused~~ has a narrow beam in elevation D and covers the lower range of the sight angle. ~~A sharply focussing antenna is based on the principle of a radar device with real aperture in contrast to a radar device with synthetic aperture. The sharply focused antenna is located at the end of a rotating arm. This focussing is performed by applying an illumination geometry in elevation with the antenna opening angles.~~ The distance to the impact point on the ground can be clearly determined ~~based on~~ by the receive echo ~~because of the sharp focussing in elevation~~ of said

transmitting/receiving antenna. The INROSAR-system accepts the distance as a basic value and calculates the further ambiguities based on the rising distance from the continuous phase transitions. The following calculation example supplies the detailed explanations.